Arrays of GPCRs were fabricated by conventional robotic pin printing, using a quill-pin printer as described in the Experimental Section. Boxer and co-workers have described the importance of transferring membranes onto the solid-support under water; we were, however, concerned that the lipid solution wetted onto the pin would partially dissociate from the pin under water and cause cross-contamination during printing. Moreover, slide racks in commercially available printers are not set up for printing under water. The ability to use off-the-shelf printing equipment for fabricating membrane-protein arrays is an important step towards the widespread fabrication and development of these arrays for bioanalytical applications.

In the Claims

Please cancel claims 33-50 without prejudice.

1. (Amended) An array comprising a plurality of biological membrane microspots stably associated with a surface of a substrate.

51. (Amended) An array comprising a plurality of biological membrane microspots stably associated with a surface of a glass substrate, wherein the surface is coated with γ-aminopropyl-silane and the biological membrane microspots comprise a G-protein coupled receptor.

Please add the following new claims:

52. (New) An array comprising a plurality of biological membrane microspots associated with the surface of a substrate, wherein the array is capable of being produced, used, or stored in an environment exposed to air under ambient humidity.

53. (New) The array of claim 52, wherein the biological membrane microspots retain their ability to bind to a ligand when stored in air.